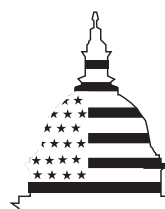


May 2001

LICENSING HYDROPOWER PROJECTS

Better Time and Cost Data Needed to Reach Informed Decisions About Process Reforms



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Form SF298 Citation Data

Report Date <i>("DD MON YYYY")</i> 00APR2001	Report Type N/A	Dates Covered (from... to) <i>("DD MON YYYY")</i>
Title and Subtitle LICENSING HYDROPOWER PROJECTS: Better Time and Cost Data Needed to Reach Informed Decisions About Process Reforms		Contract or Grant Number
		Program Element Number
Authors		Project Number
		Task Number
		Work Unit Number
Performing Organization Name(s) and Address(es) General Accounting Office, PO Box 37050, Washington, DC 20013		Performing Organization Number(s) GAO-01-499
Sponsoring/Monitoring Agency Name(s) and Address(es)		Monitoring Agency Acronym
		Monitoring Agency Report Number(s)
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes		
Abstract About 10 percent of all electricity production in the United States is generated by hydroelectric power (hydropower) projects. Federally owned and operated hydropower projects generate approximately half of this amount, while about 1,000 nonfederally owned and operated hydropower projects, which are licensed by the federal government, generate nearly all of the rest. 1 Hydropower projects can include dams, reservoirs, stream diversion structures, powerhouses containing water-driven turbines, and transmission lines. Hydropower is an important part of the nations energy mix. It offers the benefits of a comparatively inexpensive, emission-free, renewable energy source, the quantity of which can be increased quickly in periods of peak demand. In addition, the reservoirs behind hydropower dams often provide other benefits, including recreation, flood control, irrigation, and a municipal water supply. However, hydropower projects can also have adverse effects on ecosystems and resources, including fish and wildlife. They can change the fundamental chemical, physical, and biological processes of river ecosystems by (1) fluctuating river levels and altering the timing of flows, (2) blocking the downstream flow of nutrients and sediments, (3) changing water temperatures and oxygen levels, (4) impeding fish from migrating up and down streams or killing them as they pass through turbines used to generate power, and (5) drying out sections of streams.		

Subject Terms	
Document Classification unclassified	Classification of SF298 unclassified
Classification of Abstract unclassified	Limitation of Abstract unlimited
Number of Pages 38	

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United States General Accounting Office
Washington, DC 20548

May 2, 2001

The Honorable Joe Skeen
Chairman, Subcommittee on Interior
and Related Agencies
Committee on Appropriations
House of Representatives

The Honorable Ralph Regula
House of Representatives

About 10 percent of all electricity production in the United States is generated by hydroelectric power (hydropower) projects. Federally owned and operated hydropower projects generate approximately half of this amount, while about 1,000 nonfederally owned and operated hydropower projects, which are licensed by the federal government, generate nearly all of the rest.¹ Hydropower projects can include dams, reservoirs, stream diversion structures, powerhouses containing water-driven turbines, and transmission lines.

Hydropower is an important part of the nation's energy mix. It offers the benefits of a comparatively inexpensive, emission-free, renewable energy source, the quantity of which can be increased quickly in periods of peak demand. In addition, the reservoirs behind hydropower dams often provide other benefits, including recreation, flood control, irrigation, and a municipal water supply. However, hydropower projects can also have adverse effects on ecosystems and resources, including fish and wildlife. They can change the fundamental chemical, physical, and biological processes of river ecosystems by (1) fluctuating river levels and altering the timing of flows, (2) blocking the downstream flow of nutrients and sediments, (3) changing water temperatures and oxygen levels, (4) impeding fish from migrating up and down streams or killing them as they pass through turbines used to generate power, and (5) drying out sections of streams.

¹ About 600 additional small generating capacity hydropower projects are exempted from the federal licensing requirement. "Projects" in this report refers to the large, licensed hydropower projects.

The Federal Power Act (FPA) authorizes the Federal Energy Regulatory Commission (FERC) to issue licenses to construct and to operate nonfederal hydropower projects. FERC—an independent five-member commission appointed by the President and confirmed by the Senate—issues licenses valid for periods up to 50 years, after which the projects must be relicensed in order to continue operations.

FERC issued original licenses for most of the about 1,000 nonfederal hydropower projects decades ago. Between January 1, 1993, and December 31, 2000, the licenses for 395 of these projects expired. Many of these were small projects that do not generate much power. According to FERC, over the next 15 years, the licenses for another 238 projects will expire. The 238 projects, many of which are large, combine to generate over half of the nation's nonfederal hydropower.

In recent years, some licensees and other participants in the licensing process have expressed concern that obtaining a license now takes too long and costs too much. Responding to these concerns, FERC established an alternative licensing process, and other federal agencies have introduced reforms intended to make the licensing process more efficient and less costly. However, these reforms did not quell the concerns. As a result, in November 2000, the Congress directed FERC to conduct a comprehensive review of the policies, procedures, and regulations relating to the licensing of nonfederal hydropower projects to determine how to reduce the time and costs associated with obtaining a license. FERC is required to report its findings in 6 months, or by May 8, 2001.

Prior to the enactment of the statute requiring FERC to review its licensing process, you asked us to identify and assess significant issues related to the process. As agreed, this report discusses (1) why the licensing process now takes longer and costs more than it did when FERC issued most original licenses several decades ago; (2) whether participants in the licensing process agree on the need for, and type of, further reforms to the process to reduce time and costs; and (3) whether available time and cost data are sufficient to reach informed decisions on the effectiveness of recent reforms and the need for further reforms to the process.

Results in Brief

The Federal Energy Regulatory Commission, federal and state land and resource agencies, licensees, environmental groups, and other participants in the licensing process acknowledge that the process is far more complex, time-consuming, and costly today than it was when the Commission issued the approximately 1,000 original hydropower licenses

30 to 50 years ago. Since 1986, the Commission has been required to give “equal consideration” to, and make tradeoffs among, hydropower generation and other competing resource needs, including protecting and enhancing fish and wildlife. Moreover, environmental and land management laws—enacted primarily during the 1960s and 1970s—have placed additional requirements on other federal and state agencies participating in the licensing process to address specific resource needs, including protecting endangered species, achieving clean water, and preserving wild and scenic rivers. Public values toward hydropower have also changed and now reflect a growing concern about the environmental impacts of hydropower projects. Attempts to balance and make tradeoffs among competing economic and environmental interests and to improve the environmental performance of projects, while preserving hydropower as an economically viable energy source, have lengthened the process and made it more costly.

The Federal Energy Regulatory Commission, federal and state land and resource agencies, licensees, environmental groups, and other participants in the licensing process do not agree on whether further reforms are needed to reduce process-related time and costs. Some within and among these diverse parties believe that the time and money spent on licensing a project reflect the level of complexity of the issues involved and that recent reforms will likely reduce the time and costs needed to obtain a license. Conversely, others believe that recent reforms will do little to reduce time and costs. However, they cannot agree on what further reforms are needed to shorten the process and make it less costly.

To reach informed decisions on the effectiveness of recent reforms to the licensing process as well as the need for further reforms to the process, the Federal Energy Regulatory Commission must accomplish two tasks. First, it needs complete and accurate data on process-related time and costs by participant, project, and process step. Currently, the Commission does not systematically collect much of these data. Second, it needs to identify (1) why certain projects or groups of projects displaying similar characteristics take longer and cost more to license than others do and (2) why the time and costs to complete certain process steps vary by project or group of similar projects. However, the Commission has yet to link the time and cost data that it has collected to projects displaying similar characteristics. Similar characteristics may be project-related, such as whether the project is on federal land; process-related, such as whether the Commission had to resolve a dispute during the process between the licensee and a federal or state agency; or outcome-related, such as whether the terms and conditions of a new license compromise the

project's economic viability or environmental performance. Instead, the Commission is relying, in part, on observations and suggestions by parties involved or interested in the licensing process. However, without complete and accurate time and cost data and the ability to link time and costs to projects, processes, and outcomes, the Commission cannot assess the extent to which the observations and suggestions—or any recommended administrative reforms or legislative changes—might reduce the length and costs of the process. This report contains recommendations that, if implemented, would allow informed decisions on the effectiveness of recent reforms to the licensing process as well as the need for further reforms to the process.

We obtained written comments on a draft of our report from the Federal Energy Regulatory Commission. The Commission generally agreed with our characterization of the licensing process and the primary issues that affect time and costs. It also agreed that it does not systematically collect complete and accurate data on process-related time and costs by participant, project, and process step. However, the Commission believes that these data are not needed to reach informed decisions on the effectiveness of recent reforms to the licensing process as well as the need for further reforms to the process. Rather, it thinks that it can address the salient issues by developing “targeted analyses” to determine major factors affecting licensing time and costs based, in part, on its “years of experience” with the licensing process. However, we continue to believe that good data are needed to reach good decisions. Moreover, without complete and accurate time and cost data and the ability to link time and costs to projects, processes, and outcomes, the Commission increases the risk that any reforms that it recommends may not only not reduce process-related time and costs, but also result in unintended consequences to the outcomes of the process.

Background

FERC now issues few licenses to construct and operate new hydropower projects. Therefore, most of FERC's licensing activities relate to the relicensing of projects with licenses currently nearing their expiration dates.

FERC recognizes two licensing processes—a traditional process and an alternative process. In addition, some licensees use a combination of the two processes—informally referred to as a “hybrid” process. All three processes begin between 5 and 5-½ years before a project's license expires, when the licensee notifies FERC of its intent to seek relicensing. Each process ends when FERC either issues a new license or denies the

license application. However, FPA provides for subsequent administrative and judicial reviews of a FERC license decision. If a license expires while a project is undergoing relicensing, FERC issues an annual license, allowing a project to continue to operate under the conditions found in the original license until the relicensing process is complete. Currently, more than 60 projects are operating under annual licenses, including several that have been operating under annual licenses for over a decade.

FERC's newly issued licenses include a standard "reserved authority" that allows FERC to "reopen" a license to modify its terms and conditions to meet fish and wildlife needs. New licenses may also include "reopener articles" that allow federal and state agencies, nongovernmental organizations, and individuals to petition FERC to reopen a license for other issues, including minimum streamflows and water quality. Federal fish and wildlife agencies may also ask FERC to reconsider the impacts of a project when an affected species is listed as endangered or threatened under the Endangered Species Act.

The Traditional Licensing Process

FERC divides the traditional licensing process into two phases—a pre-application consultation phase and a post-application analysis phase. Each phase consists of stages and individual steps defined by "windows of time" rather than by specific dates. (See app. I.) For example, FERC requires at least 30 days to review a licensee's initial consultation package, and a meeting between the licensee and federal and state agencies typically takes place between 30 and 60 days after the initial consultation package is prepared.

During the pre-application consultation phase, the licensee must consult with officials at federal and state land and resource agencies, as well as those representing affected Indian tribes, who identify studies the licensee should undertake to determine the project's impacts on fish and wildlife, recreation, water, and other resources. If the licensee disagrees with the need for a study, FERC may be asked to resolve the dispute. After completing the agreed-upon studies, the licensee prepares a draft application and obtains comments from, and attempts to resolve any disagreements on needed actions with, the relevant federal and state agencies.

The post-application analysis phase begins when the licensee files a formal application to obtain a new license. This filing must occur at least 2 years before the license expires. The application is a comprehensive, detailed document specifying the project's proposed operations, its anticipated

impact on resources and other land uses, and proposed actions to mitigate adverse effects. FERC reviews the application to ensure that it meets all requirements and then asks relevant federal and state land and resource agencies to formally comment on it.

Depending on the comments and its own independent analysis of the application, FERC may ask the licensee to provide additional data and studies. When FERC is satisfied that these are sufficient, it conducts an environmental analysis under the National Environmental Policy Act of 1969 (NEPA) and an economic analysis of the project's benefits and costs. In addition to using FERC's NEPA analysis, affected federal land and resource agencies frequently conduct separate environmental analyses under NEPA, or assessments under other laws, to determine the license terms and conditions to be prescribed or recommended to protect or enhance fish, wildlife, and other resources. FERC reviews these terms and conditions and, if necessary, negotiates with the relevant federal and state land and resource agencies or affected Indian tribes on the license's terms and conditions.

The Alternative Licensing Process

In October 1997, FERC issued an order codifying an alternative licensing process. Similar to the traditional licensing process, the alternative licensing process is divided into pre-application and post-application phases. (See app. II.) The licensee may choose the alternative licensing process, if it can demonstrate that all the participants agree on its use, subject to final approval by FERC.

The alternative licensing process shortens the process by combining many of the earlier consultations and studies with the later analyses in the pre-application phase. For example, the licensee begins a preliminary NEPA analysis during the pre-application phase rather than having FERC begin the NEPA analysis during the post-application phase. The alternative licensing process also seeks to improve communication and collaboration among the participants in the process and often results in a "settlement agreement" at the end of the pre-application phase. This agreement, signed by all the participants in the process, includes the conditions to protect and enhance resources. Beginning the NEPA analysis and reaching agreement on license conditions in the pre-application phase are intended to shorten the post-application analysis phase.

The Hybrid Licensing Process

Some licensees use a hybrid licensing process that often combines the structured sequence of the traditional licensing process with the improved earlier consultation and collaboration of the alternative licensing process. Under this process, a licensee may try during the pre-application phase to achieve a settlement agreement among participants, but reserve the option to use the traditional process in instances when agreement cannot be reached. A further difference is that FERC conducts the NEPA analysis during the post-application phase rather than having the licensee begin the analysis during the pre-application phase as under the alternative licensing process.

Administrative and Judicial Reviews of FERC License Decisions

The licensing process is complete when FERC either issues a license or denies the license application. However, FPA provides for subsequent administrative and judicial reviews of a FERC license decision. Any party to the licensing process may file an application for a rehearing with FERC within 30 days of FERC's licensing decision. FERC subsequently issues an order (decision) on the application for a rehearing. Any party to the licensing process may also obtain a judicial review of FERC's decision in the relevant federal appeals court within 60 days after FERC's order on the application for a rehearing. FERC often delays implementation of contested license conditions until the reconsideration phase is completed.

The Licensing Process Is More Complex, Lengthy, and Costly Than It Was 30 to 50 Years Ago

FERC and other participants in the licensing process acknowledge that the process is far more complex, time-consuming, and costly today than it was when FERC issued the approximately 1,000 original hydropower licenses 30 to 50 years ago. FERC must now attempt to balance and make tradeoffs among competing economic and environmental interests and to improve the environmental performance of projects while preserving hydropower as an economically viable energy source. Balancing these interests and making the necessary tradeoffs lengthen the process and make it more costly.

FPA remains the basic statutory authority governing the licensing of hydropower projects. However, the Electric Consumers Protection Act of 1986 amended section 4(e) of FPA to require FERC to give "equal consideration" to water power development and other resource needs, including protecting and enhancing fish and wildlife, in deciding whether to issue an original or a renewed license.

In addition, environmental and land management laws—enacted primarily during the 1960s and 1970s—require other participating federal and state

agencies to address specific resource needs, including protecting endangered species, achieving clean water, and preserving wild and scenic rivers. For example, section 7 of the Endangered Species Act of 1973 represents a congressional design to give greater priority to the protection of endangered species than to the primary missions of FERC and other federal agencies.² FERC, like all other federal agencies, must ensure that its actions, including licensing decisions, are not likely to jeopardize the existence of endangered and threatened species. Moreover, NEPA requires each federal agency, including FERC, to assess the environmental impact of proposed actions—which can include licensing decisions—that may significantly affect the environment. NEPA is designed to compel federal agencies to consider the environmental impacts of their actions and to inform the public that these impacts have been taken into account prior to reaching decisions.

FPA authorizes federal and state agencies other than FERC to influence license terms and conditions, and in some instances, precludes FERC from altering license conditions imposed by other agencies. For instance, section 4(e) of FPA makes licenses for projects on federal lands reserved by the Congress for other purposes—such as national forests—or that use surplus water from federal dams subject to mandatory conditions imposed by the head of the federal agency responsible for managing the lands or facilities. Today, these agencies include the Forest Service, U.S. Department of Agriculture, and the Department of the Interior’s Bureau of Land Management, Fish and Wildlife Service, Bureau of Indian Affairs, and Bureau of Reclamation.

Similarly, section 18 of FPA requires FERC to include license conditions for fish passage prescribed by federal fish and wildlife agencies. These agencies now include Interior’s Fish and Wildlife Service and the National Marine Fisheries Service in the Department of Commerce. In addition, the Electric Consumers Protection Act of 1986 added section 10(j) to FPA. This section authorizes federal and state fish and wildlife agencies to recommend license conditions to benefit fish and wildlife that FERC must include in the license unless it (1) finds them to be inconsistent with law and (2) has already established license conditions that adequately protect fish and wildlife.

² *TVA v. Hill*, 437 U.S. 153, 185 (1978).

Moreover, section 401 of the Clean Water Act—added in 1972—requires anyone seeking a license or permit for a project that may affect water quality to seek approval from the relevant state water quality agency. States have begun to use section 401 to influence license terms and conditions.

The regulations adopted by FERC under FPA require FERC to involve the public in the licensing process. Members of the public may express their views on resource needs that they believe need to be addressed in an application to obtain a license. They may also submit comments and recommendations, request scientific studies, and formally intervene in the licensing process. As an intervenor, a member of the public is entitled, among other things, to request a rehearing of a license decision by FERC or to obtain judicial review of FERC's decision in the relevant federal appeals court.

Public values have changed over the past 30 to 50 years and now reflect a growing concern about the environmental impacts of hydropower projects. Environmental groups and others view the licensing of a hydropower project as a once-in-a-lifetime opportunity to have these values and concerns considered.

Changing public values, coupled with requirements to give equal or greater consideration to environmental concerns than to hydropower generation, have resulted in new license conditions intended to protect and enhance fish, wildlife, and other resources. For example, in an effort to reduce the risk to fish resources, new licenses may include conditions that require licensees to change minimum streamflows, construct fish-passage facilities, install screens and other devices to prevent fish from being injured or killed, limit the amount or timing of reservoir drawdowns, or purchase or restore lands affected by a project.

Participants Cannot Agree on the Need for, and Type of, Reforms to the Licensing Process

FERC, federal and state land and resource agencies, licensees, environmental groups, and other participants in the licensing process do not agree on whether further reforms are needed to reduce process-related time and costs. Some within and among these diverse parties believe that the time and money spent on licensing a project reflect the level of complexity of the issues involved and that recent reforms will likely reduce the time and cost needed to obtain a license. Conversely, others believe that recent reforms will do little to reduce time and costs. However, they cannot agree on what further reforms are needed to shorten the process and make it less costly.

Some Licensing Participants Are Satisfied With the Current Process

Some participants believe that the time and money spent on project licensing reflect the level of complexity of the issues involved. They consider the process to be worthwhile as long as it results in a new license that is legally defensible, scientifically credible, and more likely to protect resources over the term of the license.

Some of these participants also believe that recent reforms will likely reduce the time and costs associated with obtaining a new license and that additional reforms may not be necessary. For example, they believe that, when compared with projects using the traditional licensing process, projects using FERC's relatively new alternative licensing process are more likely to obtain licenses before their old ones expire and less likely to have their license decisions delayed as a result of administrative and judicial reviews.

Other recent reforms that these participants believe might shorten the licensing process or make it less costly include the following:

- A January 2001 policy by the departments of the Interior and Commerce that would, for the first time, (1) standardize the way that the two departments consider input and comments on mandatory license conditions and (2) ensure that public participation does not delay the licensing process.
- A series of recently issued reports by an interagency task force—established in the winter of 1998 by FERC and other federal agencies involved in the licensing process—that addresses practical ways to improve the process and make it more efficient.
- A February 2000 report by a national review group convened by the Electric Power Research Institute—a research consortium created by the nation's electric utilities.³ In the report, licensees, federal and state agencies, tribes, and nongovernmental organizations (1) share their licensing experiences and “lessons learned” and (2) provide participants in licensings with reasonable solutions and alternative approaches to “tough” licensing issues.

³ *Hydro Relicensing Forum: Relicensing Strategies*, Interim Report, National Review Group Publication, Electric Power Research Institute (Feb. 2000).

Other Participants Favor Further Reforms to the Licensing Process

Other participants in the licensing process believe that recent reforms will do little to reduce the time and costs to obtain a new license. For example, they believe that licensees and other participants will not use FERC's alternative licensing process for projects that involve contentious issues or when participants have conflicting values and concerns. They also believe that, while the alternative licensing process may shorten the time required to obtain a new license, it may also be more costly than the traditional licensing process. Therefore, they believe that further administrative reforms or legislative changes are needed to shorten the process and make it less costly.

However, these participants cannot agree on what further reforms are needed to shorten the process and make it less costly. For instance, some environmental groups believe that certain licensees deliberately prolong the licensing process to delay the sometimes substantial costs of complying with new license conditions. Conversely, some licensees believe that federal and state land and resource agencies prolong the process and increase the costs to obtain a new license by (1) requesting unnecessary studies; (2) not reviewing licensing applications in a timely manner; (3) analyzing or reanalyzing issues at different steps in the process without any clear sequence leading to their timely resolution; and (4) insisting on unreasonable, and sometimes conflicting, license conditions. Federal and state land and resource agencies, however, counter these claims, saying that licensings are sometimes delayed because, until FERC requires them to, licensees are unwilling to conduct studies or to provide additional information required for the agencies to fulfill their statutorily mandated missions and responsibilities. In addition, many licensees, federal and state agencies, and environmental groups believe that FERC has not provided necessary leadership and direction, especially during the pre-application consultation phase, when much of their process-related time and costs can be incurred.

In addition to blaming each other, these proponents of further reforms to reduce the time and costs to obtain a new license cannot agree on what reforms are needed to shorten the process and make it less costly. Some believe that additional administrative reforms can improve the process and make it more efficient. Others, however, believe that new legislation will be required.

FERC Needs Better Time and Cost Data to Reach Informed Decisions on the Effectiveness of Recent Reforms and the Need for Further Reforms to the Licensing Process

To reach informed decisions on the effectiveness of recent reforms to the licensing process and the need for further reforms, FERC must complete two tasks. First, it needs complete and accurate data on process-related time and costs by participant, project, and process step. Currently, FERC does not systematically collect much of these data. Second, FERC needs to identify why certain projects or groups of projects displaying similar characteristics take longer and cost more to license than others and why the time and costs required to complete certain process steps vary by project or group of similar projects. FERC has yet to link the time and cost data that it has collected to projects displaying similar characteristics, and instead is relying, in part, on observations and suggestions of parties involved or interested in the licensing process. However, without complete and accurate time and cost data and the ability to link time and costs to projects, processes, and outcomes, FERC cannot assess the extent to which the observations and suggestions—or any recommended administrative reforms or legislative changes—might shorten the process or make it less costly.

Cost Data for Most Participants Are Not Available

Data on where in the process costs are incurred and by whom are needed to reach informed decisions about the effectiveness of recent reforms to the licensing process and the need for further reforms to reduce the process-related costs of obtaining a hydropower license. However, FERC lacks much of the required data for itself, other federal and state agencies, and licensees.

For example, FERC cannot systematically separate its process-related licensing costs from other hydropower-program-related costs or link the costs to specific projects or steps in the licensing process. FERC also cannot identify other federal agencies' actual costs to participate in the licensing process. Each year FERC requests federal agencies to report their hydropower-program-related costs for the prior fiscal year; however, it does not provide clear guidance to the other agencies on what costs they should report. As a result, federal agencies do not report millions of dollars of process-related costs.⁴ Moreover, FERC does not request federal agencies to break down their costs by project or by step in the licensing process. As a result, it cannot link the hydropower-program-related costs reported by other federal agencies to either specific projects or to the

⁴ *Hydropower Relicensing: Federal Costs Are Not Being Recovered* (GAO/RCED-00-107, June 30, 2000).

various steps in the process. In addition, FERC does not request, and states generally do not report, their process-related licensing costs.

Similarly, FERC does not request licensees to report their process-related licensing costs. Some licensees have, however, voluntarily reported these costs to FERC so that FERC can include them—together with estimated mitigation costs, annual charges, and the value of power generation lost at relicensing—in its economic analysis of the projects' benefits and costs. As of February 2001, FERC had compiled data on licensees' process-related licensing costs for 83—or about 20 percent—of the 395 projects with licenses pending or issued between January 1, 1993, and December 31, 2000. However, because FERC did not provide licensees with guidance on what costs they should report, it has no assurance that the reported costs are consistent and comparable. Moreover, since the 83 projects did not represent a randomly selected sample, FERC cannot use these data to project the costs incurred by the universe of 395 projects. Moreover, FERC often could not link the costs to the various steps in the licensing process to identify which steps were the most costly. Finally, licensees reported only those costs that they incurred before they filed a formal application to FERC to obtain a new license and, thus, FERC has no data on any of their costs associated with the post-application analysis phase of the licensing process.

Time Data Are Incomplete

Because a project proceeds through sequential phases, stages, and steps in the licensing process, process-related time data are more readily available than process-related cost data, which vary by participant. However, the time data that FERC has collected are incomplete and limited almost entirely to the post-application analysis phase of the process.

FERC collected time data for the 180 projects with licenses expiring between January 1, 1994, and December 31, 2000. However, it collected data for only one step in the pre-application consultation phase of the licensing process. According to FERC, this phase generally requires 3 years or more to complete and constitutes, on average, more than 60 percent of the total time required to obtain a license. Moreover, FERC notes that the collected data on the one step in the pre-application consultation phase are incomplete because FERC did not request licensees to report when they completed the step.

In addition, FERC is not collecting time data for administrative and judicial reviews of its license decisions, although FERC often delays the implementation of contested license conditions until these reviews are

completed. Therefore, the time associated with administrative and judicial reviews should be included in the time required to obtain a license, according to many participants in the licensing process.

Available Time and Cost Data Will Not Be Linked to Project, Process, and Outcome Characteristics

When FERC completes its data collection efforts, it will have some process-related cost data (mostly from the pre-application consultation phase), and some process-related time data (mostly from the post-application analysis phase). However, FERC will not know why certain projects or groups of projects that display similar characteristics take longer and cost more to license than others or why the time and costs to complete certain steps in the process vary by project or group of similar projects.

FERC needs to link time and costs to project, process, and outcome characteristics in order to reach informed decisions on the effectiveness of recent reforms to the licensing process, as well as the need for further reforms to the process. Project characteristics might include whether the project has considerable generating capacity, is operated for peak power production, is on federal land, or affects the habitat of one or more endangered or threatened species. Process-related characteristics might include (1) whether FERC had to resolve a dispute between the licensee and a federal or state agency, (2) whether federal and state agencies prescribed new mandatory license conditions, (3) whether FERC rejected or modified new license conditions recommended by federal and state agencies, or (4) whether parties formally intervened in a licensing. Outcome-related characteristics might include whether power generation was lost at relicensing or whether the terms and conditions of a new license compromise the project's economic viability or environmental performance.

FERC Cannot Adequately Assess Public Observations and Suggestions on How the Licensing Process Might Be Shortened or Made Less Costly

As part of its mandated review of its licensing process, FERC held public meetings in six different cities. It also asked for written comments and distributed a questionnaire. In their oral and written comments and in their responses to the questionnaire, parties offered their observations and suggestions on how the process might be shortened or made less costly. However, without complete and accurate time and cost data and the ability to link time and costs to projects, processes, and outcomes, FERC will not be able to assess the extent that any of these observations and suggestions—or any administrative reforms or legislative changes that they may recommend—might (1) reduce the time and costs to obtain a license or (2) change the outcomes of the process. Thus, FERC will not be

able to adequately assess the tradeoffs between efficiency and effectiveness, quickness and quality.

FERC Does Not Have a Schedule for Developing a System to Track Process-Related Time and Costs

FERC recognizes the importance of collecting complete, accurate, and timely data on which to base informed decisions.⁵ However, it has not established a schedule with firm deadlines for developing a system that tracks process-related time and costs, nor has it developed a process to share these data with other parties involved or interested in the process.

Currently, FERC's data on the licensing process are widely dispersed throughout FERC, often not comparable, and time-consuming and resource-intensive to collect. For example, to respond to its mandate to review its licensing process, FERC gathered time data from (1) various external and internal information and tracking systems, (2) independent databases and spreadsheets, (3) document storage and retrieval systems, (4) project-specific documents, (5) staff files, (6) various studies conducted for various purposes during the past several years, and (7) other data sources. These data were often not comparable, and FERC staff often had to link them manually to one another.

To address its information technology needs, in 1999, FERC completed a review of its existing information and tracking systems. Subsequently, FERC performed a needs assessment that showed, on a macro level, how it planned to receive, generate, organize, and present information to users. In February 2001, FERC prepared a preliminary draft of its long-term vision for its hydropower-program-related data and information technology needs.

FERC officials told us that their future plans include the release of a detailed document that will define needed enhancements to FERC's information and tracking systems. However, FERC has not established a schedule with firm deadlines to implement the long-term vision of its hydropower-program-related data and information technology needs. It also has not determined what, if any, cost data to include.

Lastly, the Congress directed FERC to conduct the review of its licensing process "in consultation with other appropriate agencies." However, despite repeated requests by federal land and resource agencies, as of

⁵ *Strategic Plan for Fiscal Years 2000–2005*, FERC (Sept. 2000).

April 20, 2001, FERC had not provided them with a draft of its report or with any of the process-related time and cost data that it had collected and analyzed. As a result, Interior had to independently collect and analyze data from FERC's information and tracking systems.

On the basis of its analysis, Interior observed that it could not "determine why processing times are what they are, let alone whether these time periods are excessive or necessary for deliberative decision-making."⁶ It continued that the "parties are engaged in numerous activities during the licensing process, and to determine the extent to which each activity contributes to the processing time calls for a more elaborate type of analysis." Therefore, Interior recommended that it join with FERC to build a data set for all projects licensed by FERC and that the data be used to identify what, if any, further reforms are needed to shorten the process.

Conclusions

FERC, federal and state land and resource agencies, licensees, environmental groups, and other participants in the licensing process acknowledge that the process to obtain a license is far more complex, time-consuming, and costly today than it was 30 to 50 years ago when FERC issued the approximately 1,000 original hydropower licenses. Today, FERC faces a formidable challenge in issuing a license that is legally defensible, scientifically credible, and likely to protect fish, wildlife, and resources while still preserving hydropower as an economically viable energy source.

Participants in the licensing process do not agree on the effectiveness of recent reforms to the process or on the need for further reforms to shorten the process or make it less costly. To resolve this disagreement and to reach informed decisions on the effectiveness of recent reforms and the need for further administrative reforms or legislative changes, FERC needs (1) a system that collects complete and accurate data on process-related time and costs by participant, project, and process step and (2) the ability to link time and costs to projects displaying similar characteristics. To date, FERC has been reluctant to work with other process participants to (1) develop a system to collect and share process-related time and cost data and (2) link the data to projects displaying similar characteristics in order to identify those project, process, and outcome characteristics that

⁶ *Hydropower Licensing Policies, Procedures, and Regulations—Comprehensive Review*, Department of the Interior (Docket No. PL01-1-000, April 16, 2001).

can increase the time and costs to obtain a license. As a result, FERC will not be able to reach informed decisions on the need for further administrative reforms or legislative changes to the licensing process.

Recommendations to the Federal Energy Regulatory Commission

We recommend that the Federal Energy Regulatory Commission inform the Congress of the extent that time and cost data limitations restrict its ability to reach informed decisions on whether further administrative reforms or legislative changes are needed to shorten the hydropower licensing process or make it less costly. We also recommend that the Commission work with other federal and state agencies and licensees to (1) collect complete and accurate data on process-related time and costs by participant, project, and process step and (2) link time and costs to projects displaying similar characteristics in order to identify those project, process, and outcome characteristics that can increase the time and costs to obtain a license. In addition, we recommend that the Commission (1) establish a schedule and firm deadlines for implementing the necessary enhancements to its management information systems that are required to track and analyze process-related time and costs and (2) share these data with other parties involved or interested in the process.

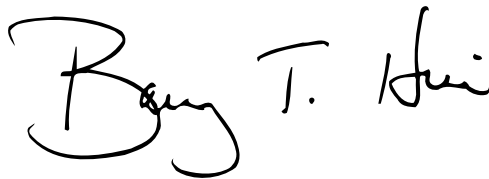
Agency Comments and Our Evaluation

We provided a draft of this report to the Chairman of FERC for his review and comment. FERC generally agreed with our characterization of the licensing process and the primary issues that affect time and costs. It also agreed that it does not systematically collect complete and accurate data on process-related time and costs by participant, project, and process step. However, FERC believes that these data are not needed to reach informed decisions on the effectiveness of recent reforms to the licensing process as well as the need for further reforms to the process. Rather, it thinks that it can address the salient issues by developing “targeted analyses” to determine major factors affecting licensing time and costs based, in part, on its “years of experience” with the licensing process. However, we continue to believe that good time and cost data are needed to reach good decisions. Without such data, it will not be possible for the Commission to determine how much either can be reduced. Moreover, without these data and the ability to link time and costs to projects, processes, and outcomes, FERC increases the risk that any reforms that it recommends may not only not reduce process-related time and costs but also result in unintended consequences to the outcomes of the process.

FERC’s comments and our responses appear in appendix IV.

We conducted our work from August 2000 through April 2001 in accordance with generally accepted government auditing standards. Appendix III contains the details of our scope and methodology.

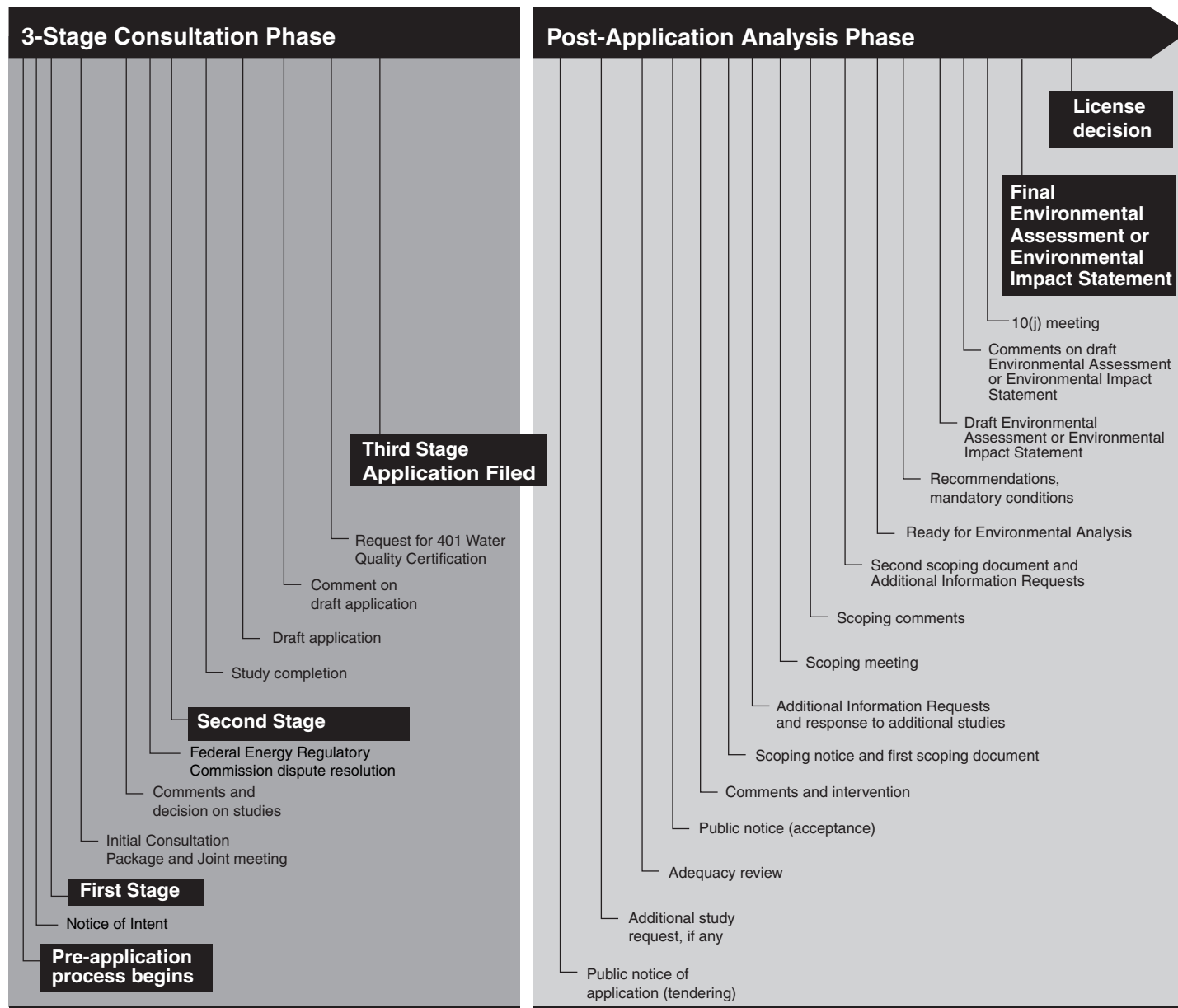
We are sending copies of this report to the Honorable Norm Dicks, Ranking Minority Member, Subcommittee on Interior and Related Agencies, House Committee on Appropriations, and the Honorable Curt Hebert, Jr., Chairman, Federal Energy Regulatory Commission. The report is also available on GAO's home page at <http://www.gao.gov>. If you have any questions about this report, please call Charles S. Cotton or me at (202) 512-3841. Key contributors to this report are listed in appendix V.

A handwritten signature in black ink that reads "Barry T. Hill". The signature is written in a cursive, flowing style.

Barry T. Hill
Director, Natural Resources
and Environment

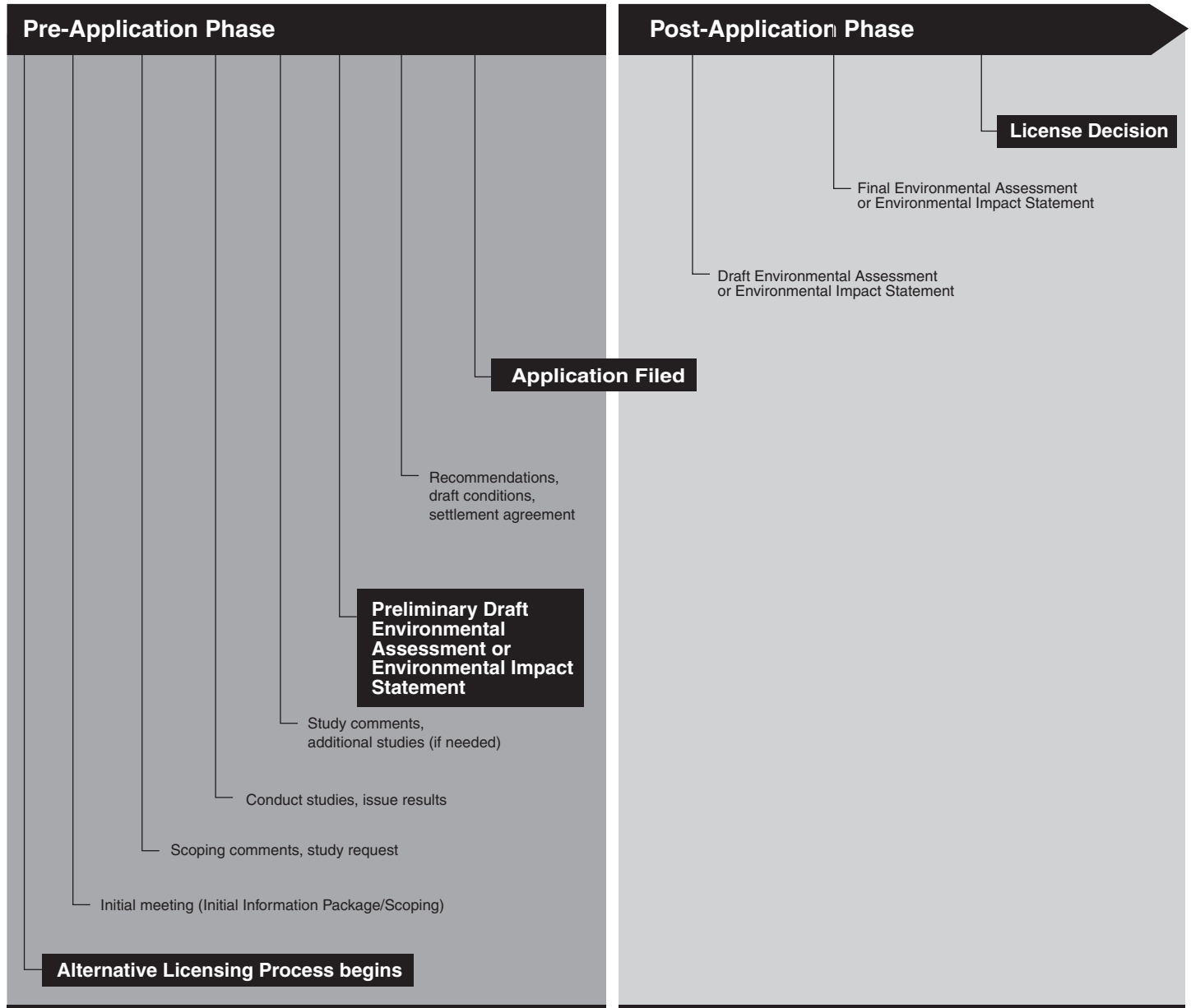
Appendix I: FERC's Traditional Licensing Process

Traditional Licensing Process



Appendix II: FERC's Alternative Licensing Process

Alternative Licensing Process



Appendix III: Objectives, Scope, and Methodology

Concerned about the licensing of nonfederal hydropower projects, Representative Ralph Regula, former Chairman, Subcommittee on Interior and Related Agencies, House Committee on Appropriations, asked us to identify and assess significant issues related to the licensing process. As agreed, this report discusses (1) why the licensing process now takes longer and costs more than it did when FERC issued most original licenses several decades ago; (2) whether participants in the licensing process agree on the need for, and type of, further reforms to the process to reduce time and costs; and (3) whether available time and cost data are sufficient to reach informed decisions on the effectiveness of recent reforms and the need for further reforms to the process.

To identify how the licensing process has changed since FERC issued most of its original licenses several decades ago, we reviewed relevant laws, regulations, court decisions, and guidance affecting hydropower licensing. We interviewed officials from FERC, federal land and resource agencies, states, industry, and nongovernmental organizations involved in the licensing process. We also reviewed pertinent documents from these sources as well as other independent analyses from academia and the private sector.

To identify the extent of agreement among participants in the licensing process on the need for, and type of, reforms to the process, we (1) attended all six of the public meetings that FERC held in January 2001 and (2) reviewed the formal written comments provided to FERC by February 1, 2001, as part of its statutorily required review of the licensing process. We also met with and obtained data from federal and state agencies, licensees, industry, nongovernmental organizations, and academia. In addition, we reviewed pertinent documents, including congressional testimonies. We also visited two hydropower projects currently involved in the licensing process, and interviewed participants involved in several other recent or ongoing licensing processes.

To identify the availability of time and cost data on which to base FERC's May 8, 2001, report on reducing process-related time and costs, we reviewed FERC databases as well as those of other federal agencies and nongovernmental organizations involved in the process. We also interviewed officials from FERC, federal and state land and resource agencies, industry, and nongovernmental organizations. We assessed the adequacy of FERC's data and information systems by examining the scope and content of its project files and databases. We then held interviews with FERC project managers, information specialists, and analysts to determine the availability of project and step-specific data on processing

time and costs. In addition, we examined a survey instrument developed by FERC to gather information on licensing time and costs from participants at the public meetings. We also reviewed FERC's strategic plan for fiscal years 2000 through 2005 prepared under Government Performance and Results Act of 1993 as well as its plans to enhance its existing information and tracking systems. We also interviewed FERC officials concerning their future information and technology plans.

We conducted our work from August 2000 through April 2001 in accordance with generally accepted government auditing standards.

Appendix IV: Comments From the Federal Energy Regulatory Commission

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

APR 11 2001

Mr. Charlie Cotton
Assistant Director
Natural Resources and Environment
U.S. General Accounting Office
441 G Street, N.W.
Washington, DC 20548

Dear Mr. Cotton:

Thank you for the opportunity to respond to your draft report entitled Licensing Hydropower Projects: Better Time and Cost Data Needed to Reach Informed Decisions About Process Reforms (April 2001). In general, you have captured the essence of the licensing process and the primary issues that affect the time frame and associated costs. Regarding your discussion of the Commission's analysis and ability to reach conclusions in our report to Congress in response to Section 603 of the Energy Act of 2000, we note that we have been developing this information subsequent to GAO's inquiry. We are confident that our report will meet the needs of the Commission, the Executive Branch, Congress, and others for determining how to reduce the cost and time of obtaining a license under the Federal Power Act.

I have enclosed detailed staff comments that address our general and specific concerns with the report. If you have any questions, please contact Edward Abrams at (202) 219-2773.

Sincerely,


Curt Hebert, Jr.
Chairman

Enclosure

See comment 1.

**Federal Energy Regulatory Commission
Comments On Draft GAO Report
Hydropower Relicensing**

General Comments:

1. GAO makes conclusory statements about what analysis will be done and what conclusions can be reached for the Section 603 report to Congress. For example, a subheading on page 14 states, "Available Time and Cost Data Will Not Be Linked to Project, Process, and Outcome Characteristics" and the last sentence of the Conclusions Section on page 16 states, "As a result, FERC will not be able to reach informed decisions on the need for further administrative reforms or legislative changes to the licensing process." We would suggest that such conclusions are premature. We note that GAO's audit concluded during beginning phases of FERC's data analysis, with GAO's exit interview almost 3 months prior to the May 8, 2001 report due date.

See comment 1.

2. GAO indicates that we should track more data and require more information to be filed with the Commission from applicants, state and federal agencies and other participants in the licensing process. GAO argues that, without such information, we will be unable to adequately respond to Congress.

See comment 1.

We agree that tracking of some information already filed with the Commission could be done more efficiently, and are taking steps towards that end. However, in our opinion, the sum of the detailed and systematic cost and time accounting process as envisioned by GAO would not yield substantially better data than can currently be collected and analyzed. The time and cost to establish all of the data systems and to gather, input and maintain the vast amount of data proposed by GAO would in our view be incommensurate with results that can reasonably be expected from utilization of the data. While larger samples and more-refined data might better indicate what parts of the licensing process take substantial time and cost, this can be generally discerned from existing data. Moreover, because of the variability in the individual circumstances of each case, we doubt any analyses utilizing these data would enable prediction of future processing times or costs, beyond what can currently be predicted. The primary mission of the Commission with respect to license applications is the processing of applications for the purpose of determining what outcomes best serve the public interest, not the gathering and processing of data documenting the process.

See comment 1.

To do what GAO proposes would require the Commission to divert money and staff away from license processing and towards the gathering and compiling of data. The Commission has already reduced the size of its hydropower staff and budget substantially in recent years. The likelihood that additional staff and budget will be obtained for this data gathering effort is small. Lastly, while the Commission can compel licensees or

See comment 2.

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See comment 3.

license applicants to provide additional time and cost data, with OMB approval, it has no ability to require other participants such as agencies, tribes, NGOs and members of the public to do so. Even if the Commission were to obtain such authority, doing so would burden these entities unduly. Further, licensees pay for the costs incurred by the Commission and other federal agencies for regulation, in addition to its own data gathering and reporting costs, through annual charges.

Specific Comments:

See comment 4.

Page 3 - 1st full sentence - We would point out that although it is true that the language "equal consideration" originated in the Electric Consumers Protection Act of 1986, the Commission has always been charged under FPA Section 10(a)(1) with balancing all relevant public interest considerations.

See comment 5.

Page 3 - 1st paragraph, last sentence - The Commission is not charged with assuring that hydropower projects it licenses are economically viable. The Commission does evaluate the relative costs and benefits of developmental and non-development measures to strike a balance among competing resources. The determination of overall economic viability or profitability of a project as licensed and whether to accept the license is left to the licensee.

See comment 6.

Page 3 - 3rd paragraph - The Commission does collect some data useful to this report in a systematic manner. Other data gathering is more staff-intensive. See also our general comments above.

See comment 7.

Page 4 - Background - 2nd full paragraph - 3rd Sentence - Section 15 of the Federal Power Act mandates that annual licenses be issued after a license expires and the Commission has not taken action on a relicense application. Issuance of an annual license is not discretionary.

See comment 8.

Page 5 - 2nd full paragraph - The licensee must also consult with affected Indian tribes.

See comment 9.

Page 6 - Last paragraph to next page - You state that "Any participant in the licensing process may file an application for a rehearing". You also state that a "participant may also obtain a judicial review..." Only parties (*i.e.*, intervenors and the applicant) may file for rehearing or seek judicial review.

See comment 10.

Page 8 - 1st full paragraph - the word "limits" in the second line is incorrect. A more accurate wording would be "in some instances, precludes FERC from altering..."

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See comment 11.

Page 8 - Same paragraph - We do not understand the phrase "-- such as lands set aside or withdrawn for conservation--". Alternatively, we suggest referring to "federal reservations, such as national forests".

See comment 12.

Page 8 - 2nd paragraph - Previous to ECPA, fish and wildlife agencies could make recommendations to benefit fish and wildlife. Section 10(j) gave greater deference to those recommendations.

See comment 13.

Page 8 - 3rd full paragraph - "may adversely affect water quality". This phrase is unnecessarily pejorative. We would suggest the following alternative language. "Moreover, section 401 of the Clean Water Act -- added in 1972-- precludes the Commission from licensing a hydroelectric power project unless that project has first obtained State water quality certification or a waiver of the certification."

See comment 14.

Page 11 - 1st full paragraph - Regarding the phrase "...can not agree on why the process is broken," we prefer not to characterize the process as "broken". From some participant's perspective, the process will always be "broken" if it does not serve their interests. The Commission has developed processes that are reasonably efficient, albeit capable of further improvements, in light of the complexity of the statutory scheme. We suggest the following text: ".....have no consensus on the types of improvements that can be made to make the process more efficient".

See comment 15.

Page 11 - You state that various groups believe that "...FERC has not provided necessary leadership and direction, especially during the pre-application consultation phase...", without citing what is lacking. The Commission has, for example, made staff available upon request for pre-application involvement; developed the alternative licensing process; developed a dispute resolution process to address pre-filing study needs; helped to develop an inter-agency training course on hydropower licensing; participated in the EPRI National Review Group, participated on interagency task force working groups on federal agency coordination, state agency coordination, collaborative process, *ex parte* communications (resulting in a new *ex parte* rule), and economics; conducted outreach meetings; created a dispute resolution office; improved information technology to make information more readily available to the public and to improve internal tracking systems; and prepared internet-available guidance to the public. It would be more helpful if GAO were more specific in the comment and the source.

See comment 1.

Pages 12, 13, and 14 - See General Comments above. Staff does anticipate completing development of sufficient information to address Congress' request and will link time and cost to certain project, process, and outcome characteristics staff perceive to be relevant. Staff also anticipates completing development of data on factors affecting time and cost. While we agree that some data are limited, we think that we can address the salient issues

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See comment 1.

without all data that GAO envisions. For example, agencies have not provided information of agency costs and time, but did identify that primary cost and time expenditures relate to resolving study needs, as staff was aware from years of experience with licensing. We discussed with the agencies various alternatives to address this issue. In sum, we are developing targeted analyses to determine major factors affecting licensing time and cost, with minimal burden on licensing participants.

See comment 16.

Page 13 - 1st full paragraph - We note, for accuracy sake, that the referenced data set included pending cases and licenses issued after January 1, 1993. At that time, we also indicated to GAO that our data set was subject to change as new information became available, including information on post-filing costs.

See comment 17.

Page 15 - 1st partial paragraph - GAO identifies that "FERC asked respondents to identify ways to shorten the licensing process or make it less costly without regard to the impacts of their observations and suggestions on the outcomes of the process." and therefore concludes that FERC "did not recognize or assess tradeoffs between efficiency and effectiveness, quickness and quality." The Commission staff recognizes potential tradeoffs, as did commenters, and will not propose any measures that would compromise its "public interest" or "best comprehensive use of the waterway" standards set forth in the Federal Power Act.

See comment 18.

Pages 15, 16, and 17 - "...has not established a schedule with firm deadlines for developing a system to track process-related time and costs..." and on page 17, first paragraph, "...establish a schedule and firm deadlines for implementing the necessary enhancements to its management information systems..." The Commission has set forth a logical, controlled order of events for conducting software development. The System Development Life Cycle (SDLC) serves as the mechanism to assure that developed systems meet established requirements and support the achievement of the Commission's missions and functions. The expansion of OEP IT will follow the guidelines for systems development, maintenance work patterns, and documentation requirements. We have completed the OEP IT Vision/system concept development phase and are in Phase I of defining requirements that will provide the data necessary to establish a project plan, including initial cost and a schedule. Phase II of the functional user requirements will follow that formally defines and delineates the requirements for data, system performance, security, and maintenance. At this point in the development cycle, requirements will be defined in sufficient detail to enable system design to proceed.

See comment 19.

Page 15, 2nd full paragraph - GAO indicates that the Commission's shift to a new tracking system in October 1999, prevented staff from updating process-related data. Actually, the shift enabled staff to enter dates beyond December 31, 1999. On October 1, 1999, the Commission shut down its main frame computer operations and shifted to a

See comment 19.

See comment 20.

See comment 21.

See comment 1.

See comment 22.

See comment 22.

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Windows environment. Because of Y2k problems with the Commission's main workload tracking system, staff had been unable to enter process-related dates beyond December 31, 1999. The staff had to rely on other means to track licensing/relicensing workload during the latter part of 1999. Transferring data from other systems (including paper records) to the new systems and correcting the data that had been recently entered in the main frame system, combined with the normal time it takes to learn new systems, resulted in data integrity problems during this changeover period. These problems were quickly resolved. But with the new systems we are able to extract and manipulate data to a greater degree than before.

Page 16 - 2nd full paragraph - We are unaware of staff's refusal to share with other agencies any of the process-related time and cost data that it has collected. Rather, staff has been unwilling to release study-specific data before staff has had an opportunity to compile and truth the data. Other than the general request to share data from the consulted agencies, we received only one specific request for data from Interior. In that instance staff was in the middle of gathering raw data for its Section 603 study and had nothing credible to offer Interior, but did update data on the internet that Interior requested. At the February 13, 2001 meeting with the federal agencies, we requested that the agencies provide us data on the time they expended and the costs to them for their participation in the licensing process. To date, we've received no data.

Page 16 and 17 - Conclusions and Recommendations to the Federal Energy Regulatory Commission. - See above comments.

Appendix I - In the Post-Application Analysis Phase, the "Adequacy review" occurs before additional studies are requested.

Appendix II - Many steps are missing, including the pre-filing dispute resolution process and the post-filing tendering notice, additional study (if needed), acceptance notice, comments and intervention, additional study and response to additional study requests, recommendations and mandatory conditions, comments on draft environmental assessment, and 10(j) process, if needed.

GAO Comments

Comment 1: FERC states that our audit work concluded almost 3 months ago and suggests that our conclusions are premature. However, nothing has changed during the intervening 3 months. FERC still does not have the data needed to reach informed decisions on the effectiveness of recent reforms to the licensing process or on the need for further reforms to the process. As reflected in their comments below, FERC's position has not changed. It does not believe that it needs to systematically collect complete and accurate data on process-related time and costs by participant, project, and process step to reach informed decisions on the effectiveness of recent reforms to the licensing process as well as the need for further reforms to the process. Rather, it thinks that it can address the salient issues by developing "targeted analyses" to determine major factors affecting licensing time and costs based, in part, on its "years of experience" with the licensing process. However, we continue to believe that good data are needed to reach good decisions. Moreover, without complete and accurate time and cost data and the ability to link time and costs to projects, processes, and outcomes, FERC increases the risk that any reforms that it recommends may not only not reduce process-related time and costs but also result in unintended consequences to the outcomes of the process.

Comment 2: According to FERC, systematically collecting complete and accurate data on process-related time and costs by participant, project, and process step would "divert money and staff away from the licensing process." Conversely, we believe that the money would be well spent, if it resulted in informed decisions on the need for further reforms to the licensing process to reduce time and costs. In fact, FERC's comment seems inconsistent with its own strategic plan. In its Strategic Plan for Fiscal Years 2000-2005, FERC states that "accurate and timely information is essential for external customers and staff alike." Therefore, we did not make any changes to the report on the basis of this comment.

Comment 3: We disagree with this comment. FERC states that requiring or requesting that licensees, federal and state agencies, tribes, non-government organizations, and members of the public provide additional time and cost data would "burden these entities unduly." FERC also asserts that it cannot compel federal agencies to submit additional time and cost data. We recognize that providing the data will take time and cost money. However, we fail to see how doing so would unduly burden participants in the licensing process. Obtaining a license is not a yearly event. Rather, it occurs once every 30 to 50 years. Moreover, we never recommended or suggested that FERC collect time and cost data from tribes, non-government organizations, and members of the public. In

addition, while FERC cannot compel federal agencies to submit additional time and cost data, it is not prohibited from requesting that the agencies provide this information and federal agencies appear willing to do so. For instance, in responding to our June 2000 report on recovering federal hydropower licensing costs,¹ federal agencies agreed to ensure that their financial management and reporting systems were capable of producing accurate, timely, and reliable information on hydropower-program-related administrative costs.

Comment 4: We did not make any changes to the report on the basis of this comment. FERC observes that “it has always been charged under FPA section 10(a)(1) with balancing all relevant public interest considerations.” While this statement is true, congressional dissatisfaction with FERC’s efforts to carry out this responsibility led to a 1986 amendment to FPA, which required FERC to give “equal consideration” to water power development and other resource needs, including protecting and enhancing fish and wildlife, when deciding whether to issue an original or a renewed license. This amendment was one of a series of statutes enacted subsequent to the passage of FPA that specifically required FERC and other federal agencies to consider resource needs in addition to water power development. We used the 1986 amendment to illustrate the increasing complexity of the licensing process.

Comment 5: We agree that FERC is not charged with assuring that hydropower projects it licenses are economically viable. However, as stated in its September 2000 strategic plan, FERC does attempt to “optimize hydropower benefits by improving the environmental performance of projects while preserving hydropower as an economically viable energy source.”² Since the language in our report is consistent with the language in FERC’s strategic plan, we did not make any changes to the report on the basis of FERC’s comment.

Comment 6: We revised the report to state that FERC does not systematically collect much of the needed time and cost data.

Comment 7: We revised the report to make clear that, if a license expires while a project is undergoing relicensing, FERC issues an annual license,

¹ *Hydropower Relicensing: Federal Costs Are Not Being Recovered* (GAO/RCED-00-107, June 30, 2000).

² *Strategic Plan for Fiscal Years 2000-2005*, FERC (Sept. 2000).

allowing a project to continue to operate under the conditions found in the original license until the relicensing process is complete.

Comment 8: We revised the report to add “affected Indian tribes.”

Comment 9: We agree with FERC that only parties to the licensing process may (1) file an application for a rehearing with FERC within 30 days of FERC’s licensing decision and (2) obtain a judicial review of FERC’s decision in the relevant federal appeals court within 60 days after FERC’s order on the application for a rehearing. Therefore, we revised the report accordingly.

Comment 10: We revised the report to state that FPA authorizes federal and state agencies, other than FERC, to influence license terms and conditions, and in some instances, precludes FERC from altering license conditions imposed by other agencies.

Comment 11: We revised the report to state that section 4(e) of FPA makes licenses for projects on federal lands reserved by the Congress for other purposes—such as national forests—or that use surplus water from federal dams subject to mandatory conditions imposed by the head of the federal agency responsible for managing the lands or facilities.

Comment 12: We mentioned section 10(j) to emphasize the increased role of federal and state fish and wildlife agencies in the licensing process sine enactment of the Electric Consumers Protection Act of 1986. We revised the report to more clearly reflect this.

Comment 13: We revised the report to delete “adversely.”

Comment 14: We revised the report to state that participants who believe that further reforms are needed to reduce the time and costs to obtain a new license cannot agree on *what further reforms are needed to shorten the process and make it less costly*.

Comment 15: FERC notes that our report states that many licensees, federal and state agencies, and environmental groups believe that FERC has not provided necessary leadership and direction; however, we do not cite what is lacking. FERC then provides examples of recent actions that it has taken that it believes provide leadership and direction. We recognize that FERC has taken actions intended to shorten the licensing process or make it less costly and provide examples of these actions under the subcaption “Some Licensing Participants Are Satisfied With the Current

Process.” We also cite one of the most often mentioned concerns about FERC; that is, its lack of leadership and direction during the pre-application consultation phase when much of their process-related time and costs can be incurred. Moreover, FERC is aware of these concerns since they were raised at the public meetings that FERC held as part of its mandated review of its licensing process.

Comment 16: We revised the report to state that, as of February 2001, FERC had compiled data on licensees’ process-related licensing costs for 83—or about 20 percent—of the 395 projects with licenses *pending or issued* between January 1, 1993, and December 31, 2000. FERC did not provide us with any new data subsequent to February 2001.

Comment 17: We revised the report to make a clearer the link between data and outcomes. Specifically, we state that without complete and accurate time and cost data and the ability to link time and costs to projects, processes, and outcomes, FERC will not be able to assess the extent to which the observations and suggestions—or any administrative reforms or legislative changes that it may recommend—might (1) reduce the time and costs to obtain a license or (2) change the outcomes of the process.

Comment 18: We did not make any changes to the report on the basis of this comment. Rather, FERC’s comment, which does not identify any completion dates for either phase of its system development, supports our finding that it has not established a schedule with firm deadlines for developing a system to track process-related time and costs.

Comment 19: We revised the report to delete the two sentences in question. The one-time difficulties incurred in shifting from an old tracking system to a new one are not germane to our finding that FERC has not established a schedule with firm deadlines for developing a system to track process-related time and costs.

Comment 20: FERC states that it is not aware of its staff’s refusal to share data with other agencies. However, documentation that we obtained from the Department of the Interior shows that Interior asked for, but was not provided, the process-related time and cost data that FERC had collected.

As a result, Interior had to independently collect and analyze process-related time data from FERC's information and tracking systems.³

Comment 21: According to FERC, at a February 13, 2001, meeting, it requested that other federal agencies provide it with their process-related time and cost data. FERC states that it did not receive the data. However, as we reported in June 2000, FERC has not provided these agencies with guidance on what and how process-related costs should be reported⁴ and continues to decline to do so. Therefore, we did not make any changes to the report on the basis of this comment.

Comment 22: Appendixes I and II correspond exactly to the sequence of steps in the handouts and viewgraphs presented by FERC at the public meetings held in six cities in January 2001 as part of its mandated review of the licensing process. Therefore, we did not make any changes to the report on the basis of these comments.

³ *Hydropower Licensing Policies, Procedures, and Regulations – Comprehensive Review*, Department of the Interior (Docket No. PL01-1-000, April 16, 2001).

⁴ *Hydropower Relicensing: Federal Costs Are Not Being Recovered* ([GAO/RCED-00-107](#), June 30, 2000).

Appendix V: GAO Contacts and Staff Acknowledgments

GAO Contacts

Barry T. Hill, (202) 512-3841
Charles S. Cotton, (202) 512-3841

Acknowledgments

In addition to those named above, Jerry Aiken, Paul Aussendorf, Erin Barlow, David Goldstein, Richard Johnson, Chester Joy, and Arvin Wu made key contributions to this report.

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